

REMARKS/ARGUMENTS

Claims 1-16 are pending. Claims 1-8 were rejected in the Non-Final Office Action. Claims 9-16 are new. Reconsideration of the rejected claims and consideration of the new claims are respectfully requested.

Rejection of Claims 1-8 Under 35 USC § 103

The Examiner rejected claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication No. 2004/0257476 (Song) in view of US Patent Publication No. 2002/0101924 (Suzuki). The applicant respectfully traverses the rejection.

The Examiner relies primarily on Song for the rejections. However, there are numerous limitations in independent claim 1 that are not taught or disclosed in Song. First, claim 1 requires the generation of a “pull-down switch-off signal.” Song does not disclose this limitation. In fact, Song teaches the exact opposite of this limitation and therefore teaches away from this limitation. Specifically, Song teaches the detection of a film source (such as one at 24 HZ or 24 film frames per second) so that the 3:2 pull-down method can be applied. *See* Song at paragraphs [0006, 0013]. Thus, it teaches the identification of a condition that will cause 3:2 pull-down to be applied, not a “switch-off signal” for pull-down.

Second, as noted by the Examiner, Song teaches the SAD (or Sum of Absolute Differences) technique and not the MAD (or Mean Absolute Distortion) technique as required by claim 1. *See* Song at paragraphs [0009].

Third, claim 1 requires “wherein the circuit for determining the Hadamard coefficients delivers two coefficients in blocks per frame, from which coefficients a first coefficient indicates the sum of the differences of the pixels of adjacent scanning lines i and $i+1$ and a second coefficient indicates the sum of the differences of the pixels of scanning lines i and $i+2$.” Song does not disclose this limitation at all in the sections of Song relied upon by the Examiner. *See* Song at paragraphs [0022-0023 and 0025].

Fourth, claim 1 requires “wherein the pull-down switch-off signal is generated in dependence on the values of the MAD signal summed for all the blocks of a frame and in dependence on the two Hadamard coefficients summed for all the blocks of a frame.” Again, this is not disclosed in the portion of Song relied upon by the Examiner. *See* Song at paragraphs [0022-0023 and 0025].

In addition, the Examiner relies upon Suzuki for the limitation in claim 1 of “a converted signal which is produced from an NTSC signal.” The portion of Suzuki relied upon by the Examiner does not disclose performing an inverse 3:2 pull-down conversion on an *NTSC signal* to obtain a converted signal. *See* Suzuki at paragraphs [0050-0053].

Claims 2-8 depend upon claim 1 and therefore are not rendered obvious by Song and Suzuki for at least the same reasons discussed above for claim 1. Moreover, the Examiner relies upon Song for the limitations added by claims 2-8. However, the portions of Song relied upon by the Examiner do not recite:

- “the pull-down switch-off signal signals a switching off when the MAD value summed for each frame exceeds a predefined threshold, and/or signals a switching off when the quotient from the first Hadamard coefficient summed frame-by-frame and the second Hadamard coefficient summed frame-by-frame at one or more predefinable positions within a predefinable number of pull-down four-cycles of the converted signal exceeds a predefinable threshold” (claim 2),
- “the pull-down switch-off signal signals a switching off of the inverse 3:2 pull-down conversion when at least one predefinable position within a predefinable number of pull-down four-cycles of the converted signal the value of the quotients of the assigned Hadamard coefficients lies a predefinable value above or below the average of the summed quotients of the Hadamard coefficients of all the positions of this pull-down four-cycle” (claim 3),
- “the pull-down switch-off signal signals a switching off of the inverse 3:2 pull-down conversion when at one of the positions one, two or three within three

consecutive cycles of the converted signal the value of the summed quotients of the assigned Hadamard coefficients lies about 10% above or below the average of the quotients of the Hadamard coefficients of all the position of this pull-down four-cycle, wherein the position two within one cycle of the converted signal represents the position whose converted frame was recovered from two different frames of the unconverted signal” (claim 4),

- “the pull-down switching signal signals a switching off of the inverse 3:2 pull-down conversion if the MAD signal summed frame-by-frame exceeds three times the average value from the MAD values of a predefinable number of previous frames” (claim 5),
- “the MAD detector and the circuit for determining the Hadamard coefficients are provided in common for the arrangement and for an MPEG encoder for which the pull-down switch-off signal is provided” (claim 6), and
- “the pull-down switch-off signal is provided for an MPEG2 or MPEG4 encoder” (claim 7).

See Song at paragraphs [0025-0027].

Thus, for all of the reasons discussed above, claims 1-8 are in allowable form.

New claims 9-16 are method claims and contain similar limitations to those discussed above for claims 1-8. Claims 9-16 therefore are allowable over Song and Suzuki as well.

CONCLUSION

In view of the above, it is respectfully submitted that the claims are allowable over the prior art cited by the Examiner and early allowance of these claims and the application is respectfully requested.

The Examiner is invited to call Applicant’s attorney at the number below in order to speed the prosecution of this application.

The Commissioner is authorized to charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 07-1896.

Respectfully submitted,

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